

CLAIMS

1. A composite fabric comprising first and second fabric layers and an intermediate vapor barrier having a variable water vapor diffusion resistance which substantially decreases as air speed impinging on said fabric increases.

2. The composite fabric of Claim 1, wherein said vapor barrier comprises a membrane made from a material selected from the group consisting of polyurethane, polyamide, polytetrafluoroethylene, polyester, or a combination thereof.

3. The composite fabric of Claim 2, having the characteristics of said membrane being controllably stretchable.

4. The composite fabric of Claim 1, wherein said vapor barrier comprises an adhesive.

5. The composite fabric of Claim 4, wherein said adhesive is foamed.

6. The composite fabric of Claim 4, wherein said adhesive is selected from the group consisting of polyurethane, acrylics, polyamides, polyesters and combinations thereof.

7. The fabric of Claim 1, wherein at least one of said fabric layers is rendered hydrophilic.

8. The fabric of Claim 1, wherein at least one of said fabric layers has a raised surface.

9. The composite fabric of Claim 1, wherein said barrier is a continuous layer.

10. The composite fabric of Claim 1, wherein said adhesive is a discontinuous layer.

11. A method of forming a composite fabric comprising the steps of disposing a vapor barrier between a first and a second fabric layer in order to produce the fabric, said vapor barrier being selected from the group

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consisting of a membrane and an adhesive, and then mechanically processing the produced fabric such that water vapor diffusion resistance of the fabric decreases as air speed impinging on the fabric increases.

5        12. The method of Claim 11, wherein said vapor barrier is a membrane, and wherein said mechanical processing comprises controlled stretching of the fabric.

10        13. The method of Claim 11, wherein said vapor barrier is an adhesive and said mechanical processing comprises applying pressure to said fabric.

14. The method of Claim 13, wherein pressure is applied by passing said fabric through a plurality of rollers.

15        15. The method of Claim 14, wherein said rollers are heated.

16. The method of Claim 13, wherein said fabric is passed through said rollers at variably controlled speeds.

20        17. The method of Claim 13, wherein said adhesive is foamed.

18. The method of Claim 13, wherein said adhesive is disposed between said layers by means of transfer coating by use of a release paper.

25        19. The method of Claim 11, wherein said barrier is disposed between said fabric layers as a continuous film.

20. The method of Claim 11, wherein said adhesive is disposed between said fabric layers as a discontinuous film.

30        21. The method of Claim 11, wherein said barrier is disposed between said layers by means of a release paper.

22. The method of Claim 11, wherein said barrier is disposed between said layers by application directly to at least one of said fabric layers.

*Adapted*